



***M*urfreesboro *W*ater & *S*ewer *D*epartment**
2003 Annual Water Quality Report

The purpose of this water quality report is to provide you, our customer, with information regarding your drinking water. We want to keep you informed about the water and services we have delivered to you over the past year, and we are pleased to provide you with this year's annual Drinking Water Quality Report. The most important part is to let you know that your water is **safe for drinking**. We also want to take this opportunity to give you a little more background on your water system.

Your water, which is surface water, comes from two surface water locations. One water source is the East Fork of the Stones River and the other source is the J. Percy Priest Lake. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving MWSD. The SWAP Report assesses the susceptibility of public water supplies to **potential** contamination. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The MWSD sources are rated moderately susceptible to potential contamination.*

The MWSD serves over 24,000 customers and a population of 75,073, according to the 2003 special census, through more than 700 miles of water lines. The water treatment plant operates continuously, and has an average production of 13 million gallons per day (MGD) of drinkable water, all of which meets or surpasses all State and Federal drinking water regulations. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water

The MWSD is owned and operated by the City of Murfreesboro. We receive no tax revenue from City, State or Federal governments, but rely solely upon our rates and fees for operational funding. MWSD reads every water meter and bills each customer every month. In the event of an abnormally high meter reading, we will attempt to alert the customer. Payment may be made at our drive-up window, payment counter, by mail, or by bank draft.

There is no such thing as naturally pure water. In nature, all water contains some impurities. These

impurities are referred to as contaminants. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. In fact, your tap water is scrutinized and regulated much more closely than any bottled water. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).



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The Murfreesboro Water Department routinely monitors constituents in your drinking water in accordance with Federal and State laws. The test results table, on the following page of this report, shows the substances that were detected for the period from January 1 to December 31, 2003. As you can see by the Water Quality Data table, **our water system had no violations**. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that **your water is safe** at these levels.

* An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.state.tn.us/environment/dws/dwassess.php or you may contact the Water System or TDEC at 1-888-891-TDEC to obtain copies of specific assessments.

WATER QUALITY DATA

Contaminant	MCL	MCLG	Level Found	Range of Detection	Violation Yes/No	Date of Sample	Typical Source of Contaminant
Microbiological Contaminants							
Total Coliform	Greater than 5% of monthly samples are positive	0	Presence in 1 sample	Absence - Presence	No	06/02/03	Naturally present in the environment
TOC (ppm) Total Organic Carbon	TT	n/a	3.22	0.78 – 3.22	No	2003	Naturally present in the environment
Turbidity (NTU)	TT	n/a	0.19	0.04 – 0.19	No	2003	Soil runoff
Radioactive Contaminants							
Combined radium (pCi/l)	5	5	0.30	BDL – 0.30	No	07/17/03	Erosion of natural deposits
Inorganic Contaminants							
Barium (ppm)	2	2	0.0086	0.0086	No	05/09/03	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	AL = 1.3	1.3	0.27	0.045 – 0.44	No	06/04/02	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride (ppm)	4	4	1.19	0.80 – 1.19	No	2003	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppb)	AL = 15	0	1.4	1.0 – 3.7	No	06/04/02	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate (ppm)	10	10	0.47	0.47	No	01/24/03	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Volatile Organic Contaminants							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	3.5	2.3 – 3.5	No	2003	Water additive used to control microbes
HAAs (ppb) Haloacetic Acids	60	n/a	37	11 – 75	No	2003	By-product of drinking water chlorination
TTHMs (ppb) Total trihalomethanes	80	n/a	51	14 – 100	No	2003	By-product of drinking water chlorination

TERMS AND ABBREVIATIONS FOR TABLE

✓ **Action Level (AL):**

The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.

✓ **Below Detection Level (BDL):**

The concentration of a contaminant is below the minimum level that the instrument is capable of detecting.

✓ **Maximum Contaminant Level (MCL):**

The highest level that a contaminant is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

✓ **Maximum Contaminant Level Goal (MCLG):**

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

✓ **Maximum Residual Disinfectant Level (MRDL):**

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

✓ **Maximum Residual Disinfectant Level Goal (MRDLG):**

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

✓ **Nephelometric Turbidity Unit (NTU):**

The measure of clarity in the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

✓ **Parts per billion (ppb):**

One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

✓ **Parts per million (ppm):**

One part per billion corresponds to one minute in two years, or a single penny in \$10,000.

✓ **Picocuries per liter (pCi/L):**

The measure of radioactivity in the water.

✓ **Treatment Technique (TT):**

A required process intended to reduce the level of a contaminant in drinking water.



Your water is safe, and we want to keep it that way.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Consequently, we urge our customers to be on guard against cross-connections that might contaminate our water supply. A

cross-connection is a link between an approved drinking water supply and any system other than an approved drinking water supply. Our City ordinance provides safeguards against cross-connections in industrial and commercial settings, and MWSD has two full time employees whose sole function is to guard against these types of cross-connections. The risk from residential cross-connections is less than that from industrial and commercial applications, but is very real. The most common form of a residential cross-connection occurs when a garden hose is submerged in a bucket, pool, or standing water. The most dangerous residential cross-connections are those involving chemical applicators for pesticides. A hose bib vacuum breaker provides adequate protection against garden hose cross-connections. This is a simple device that is available at most hardware and plumbing supply stores and generally costs between five and fifteen dollars—a small investment that provides an enormous potential benefit.

Although we anticipate being able to meet all of our customers' needs, we urge you to conserve water by promptly repairing leaks within your plumbing system. This not only helps us to keep down production costs, it provides savings on your monthly billings. Even as we encourage conservation, we understand the seasonal need to replenish pools and to water landscaped areas. Realizing this, when your bill is printed in April, May, June, July, August, September, and October, if your usage exceeds your winter month average plus twenty percent, your bill is automatically reduced by our Summer Sewer Adjustment to the sewer billing.

If you have any questions about this report, or concerning your water quality, please contact Alan Cranford at (615) 848-3222 between 7:00 a.m. and 3:00 p.m. Monday through Friday. General information and services are available from our administrative offices at 890-0862 from 8:00 a.m. to 4:30 p.m. Monday through Friday. Our emergency after-hours phone number is 893-1223.

We want our customers to be informed about their water utility. Our regularly scheduled Water & Sewer Board meetings are held on the fourth Tuesday of each month at 3:30 p.m., at 1725 South Church Street, Murfreesboro.

We at Murfreesboro Water & Sewer Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.